

Amendments to the Claims

This listing of claims will replace any prior version or listing of claims in the application.

Listing of Claims

1 (currently amended). A coupling assembly for flexibly joining pipes to one another end to end and permitting relative axial, torsional and angular deflection between said pipes, said coupling assembly comprising:

a first ring attachable to an end of one of said pipes, said first ring having an outer diameter greater than said pipe and an outwardly facing circumferential groove therein;

a first sealing member positionable within said groove of said first ring and extending circumferentially therearound;

a second ring attachable to an end of another of said pipes, said second ring having an outer diameter greater than said other pipe and an outwardly facing circumferential groove therein;

a second sealing member positionable within said groove of said second ring and extending circumferentially therearound;

a band positionable in overlying relation with and surrounding said first and second rings, said band having an inwardly facing surface sealingly engageable with said first and second sealing members and having a width sufficient to allow a gap between said pipes; and

a housing positionable in overlying relation with and surrounding said rings and radially spaced apart from said band, said housing having a pair of first shoulders positioned in spaced apart relation, each said first shoulder being engageable with one of said rings for limiting axial and angular deflection of one pipe relative to the other, and a pair of second shoulders each said second shoulder being

positioned on an opposite side of said band, each said second shoulder being engageable with an edge of said band for maintaining said band engaged with said sealing members; and a pair of circumferential rims positioned in longitudinally spaced apart relation, each said rim extending radially inwardly and being in spaced relation to said pipes, said rims being engageable with said pipes upon angular deflection thereof for maintaining said spaced relation between said housing and said band.

2 (original). A coupling assembly according to Claim 1, wherein one of said rings has an inner diameter sized to receive said pipe end in substantially coaxial engagement.

3 (original). A coupling assembly according to Claim 1, wherein said housing comprises a plurality of housing portions attachable to one another end to end to extend around said pipe ends.

Claim 4 (canceled).

5 (currently amended). A coupling assembly according to Claim 1, wherein said first shoulders are positioned at a predetermined longitudinal distance from one another so as to engage said rings and thereby limit angular deflection between said pipes to a maximum of up to about 2°.

6 (currently amended). A coupling assembly according to Claim 1, wherein said first shoulders are positioned at a predetermined longitudinal distance from one another so as to engage said rings and thereby limit angular deflection between said pipes to a maximum of up to about 4°.

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7 (original). A coupling assembly according to Claim 1, wherein said rings are attached to said pipe ends by welding.

8 (original). A coupling assembly according to Claim 1, wherein said sealing members comprise O-rings.

9 (original). A coupling assembly according to Claim 1, wherein said band comprises a single piece.

10 (currently amended). A coupling flexibly joining pipes to one another end to end and permitting axial, torsional and angular deflection between said pipes, said coupling comprising:

a first ring attached coaxially around an end of one of said pipes, said first ring having an outwardly facing circumferential groove therein;

a first sealing member positioned within said groove of said first ring and extending circumferentially therearound;

a second ring attached coaxially around an end of another of said pipes, said second ring having an outwardly facing circumferential groove therein;

a second sealing member positioned within said groove of said second ring and extending circumferentially therearound;

a band positioned coaxially surrounding said first and second rings, said band having an inwardly facing surface sealingly engaging said first and second sealing members and having a width sufficient to allow a gap between said pipes; and

a housing coaxially surrounding said rings and said band, said housing being radially spaced apart from said band and having a pair of circumferential rims positioned in longitudinally spaced apart relation, each said rim extending radially inwardly and being in spaced relation with said

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pipes, said rims being engageable with said pipes upon angular deflection thereof for maintaining substantially co-axial, radially spaced relation between said housing and said band, said housing having a pair of first shoulders positioned in spaced apart relation facing one another, said rings being positioned between said first shoulders, each said first shoulder being engageable with one of said rings for limiting axial and angular deflection of one pipe relative to the other, said first shoulders being positioned at a predetermined longitudinal distance from one another so as to engage said rings and thereby limit angular deflection between said pipes to a maximum of up to about 2°; and

a pair of second shoulders, each said second shoulder being positioned in spaced apart relation on an opposite side of said band, each said second shoulder being engageable with an edge of said band for maintaining said band engaged with said sealing members.

11 (original). A coupling assembly according to Claim 10, wherein said housing comprises a plurality of housing portions attached to one another end to end to extend around said pipes.

12 (original). A coupling according to Claim 11, further comprising fasteners attaching said housing portions to one another.

Claims 13-15 (canceled).

16 (new). A coupling assembly for flexibly joining pipes to one another end to end and permitting relative axial, torsional and angular deflection between said pipes, said coupling assembly comprising:

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a first ring attachable to an end of one of said pipes, said first ring having an outer diameter greater than said pipe and an outwardly facing circumferential groove therein;

a first sealing member positionable within said groove of said first ring and extending circumferentially therearound;

a second ring attachable to an end of another of said pipes, said second ring having an outer diameter greater than said other pipe and an outwardly facing circumferential groove therein;

a second sealing member positionable within said groove of said second ring and extending circumferentially therearound;

a band positionable in overlying relation with and surrounding said first and second rings, said band having an inwardly facing surface sealingly engageable with said first and second sealing members and having a width sufficient to allow a gap between said pipes;

a housing positionable in overlying relation with and surrounding said rings and radially spaced apart from said band, said housing having a pair of first shoulders positioned in spaced apart relation, each said first shoulder being engageable with one of said rings for limiting axial and angular deflection of one pipe relative to the other, said first shoulders being positioned at a predetermined longitudinal distance from one another so as to engage said rings and thereby limit angular deflection between said pipes to a maximum of up to about 2°; and

a pair of second shoulders each said second shoulder being positioned on an opposite side of said band, each said second shoulder being engageable with an edge of said band for maintaining said band engaged with said sealing members.

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17 (new). A coupling assembly for flexibly joining pipes to one another end to end and permitting relative axial, torsional and angular deflection between said pipes, said coupling assembly comprising:

a first ring attachable to an end of one of said pipes, said first ring having an outer diameter greater than said pipe and an outwardly facing circumferential groove therein;

a first sealing member positionable within said groove of said first ring and extending circumferentially therearound;

a second ring attachable to an end of another of said pipes, said second ring having an outer diameter greater than said other pipe and an outwardly facing circumferential groove therein;

a second sealing member positionable within said groove of said second ring and extending circumferentially therearound;

a band positionable in overlying relation with and surrounding said first and second rings, said band having an inwardly facing surface sealingly engageable with said first and second sealing members and having a width sufficient to allow a gap between said pipes;

a housing positionable in overlying relation with and surrounding said rings and radially spaced apart from said band, said housing having a pair of first shoulders positioned in spaced apart relation, each said first shoulder being engageable with one of said rings for limiting axial and angular deflection of one pipe relative to the other, said first shoulders being positioned at a predetermined longitudinal distance from one another so as to engage said rings and thereby limit angular deflection between said pipes to a maximum of up to about 4°; and



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a pair of second shoulders each said second shoulder being positioned on an opposite side of said band, each said second shoulder being engageable with an edge of said band for maintaining said band engaged with said sealing members.

18 (new). A coupling flexibly joining pipes to one another end to end and permitting axial, torsional and angular deflection between said pipes, said coupling comprising:

a first ring attached coaxially around an end of one of said pipes, said first ring having an outwardly facing circumferential groove therein;

a first sealing member positioned within said groove of said first ring and extending circumferentially therearound;

a second ring attached coaxially around an end of another of said pipes, said second ring having an outwardly facing circumferential groove therein;

a second sealing member positioned within said groove of said second ring and extending circumferentially therearound;

a band positioned coaxially surrounding said first and second rings, said band having an inwardly facing surface sealingly engaging said first and second sealing members and having a width sufficient to allow a gap between said pipes;

a housing coaxially surrounding said rings and said band, said housing being radially spaced apart from said band and having a pair of circumferential rims positioned in longitudinally spaced apart relation, each said rim extending radially inwardly and being in spaced relation with said pipes, said rims being engageable with said pipes upon angular deflection thereof for maintaining substantially co-axial, radially spaced relation between said housing and said band, said housing having a pair of first shoulders positioned in spaced apart relation facing one another, said rings being positioned between said first shoulders, each said first

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shoulder being engageable with one of said rings for limiting axial and angular deflection of one pipe relative to the other, said first shoulders being positioned at a predetermined longitudinal distance from one another so as to engage said rings and thereby limit angular deflection between said pipes to a maximum of up to about 4°; and

a pair of second shoulders, each said second shoulder being positioned in spaced apart relation on an opposite side of said band, each said second shoulder being engageable with an edge of said band for maintaining said band engaged with said sealing members.